

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P274480

Luminaire Tested: **LD4B15DE010W2N2050 EU4B1020W2N902050 4LBCSSQ1MW**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P274480  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1808-906-36)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD4B15DE010W2N2050 EU4B1020W2N902050 4LBCSSQ1MW  
Description: PORTFOLIO 4" W2N SQ DOWNLIGHT, CAST SHALLOW WITH MATTE WHITE FINISH  
Light Source: W2N 2000K-5000K CCT TUNING RANGE  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1133.3 lumens  
Efficiency: N/A  
Efficacy: 51.5 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.37  
Luminous Opening: Rectangular (W 0.38' x L: 0.38' x H: 0')  
CIE Type: Direct

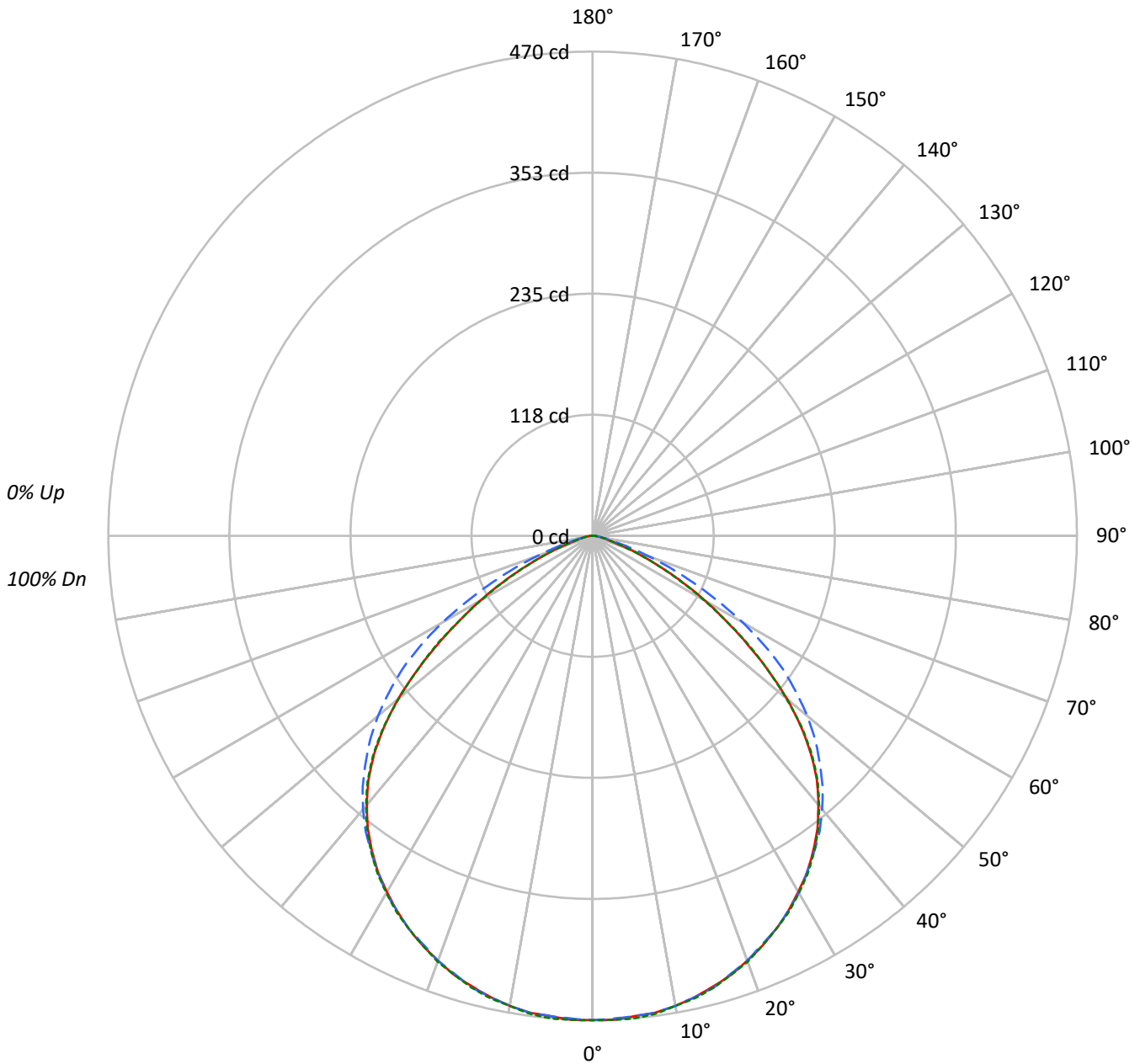
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P274480

CATALOG NUMBER: LD4B15DE010W2N2050 EU4B1020W2N902050 4LBCSSQ1MW

### Luminous Intensity Polar Plot





TEST NUMBER: P274480

CATALOG NUMBER: LD4B15DE010W2N2050 EU4B1020W2N902050 4LBCSSQ1MW

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																			
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	90	88																			
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																			
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																			
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																			
5	80	68	59	53	78	67	59	53	65	58	52	63	57	52	61	56	51	49																			
6	74	61	53	47	72	60	52	47	59	52	46	57	51	46	55	50	46	44																			
7	68	56	47	42	67	55	47	41	53	46	41	52	46	41	51	45	41	39																			
8	64	51	43	37	62	50	42	37	49	42	37	48	41	37	47	41	36	35																			
9	60	47	39	34	58	46	39	34	45	38	33	44	38	33	43	37	33	31																			
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	35998	35998	35998
5°	35959	35959	36136
10°	36010	36010	36010
15°	35881	35977	35977
20°	35743	35743	35832
25°	35581	35581	35581
30°	35274	35380	35380
35°	34891	35003	35003
40°	34053	34632	34163
45°	32464	33730	32594
50°	29318	32378	29187
55°	24448	30053	24755
60°	19289	25719	19121
65°	13529	19452	13529
70°	8348	12801	8101
75°	4495	6565	4495
80°	3615	3615	3615
85°	3074	3074	3074



TEST NUMBER: P274480

CATALOG NUMBER: LD4B15DE010W2N2050 EU4B1020W2N902050 4LBCSSQ1MW

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.6	3.9
10°-20°	127.9	11.3
20°-30°	194.2	17.1
30°-40°	234.0	20.6
40°-50°	234.9	20.7
50°-60°	180.6	15.9
60°-70°	90.5	8.0
70°-80°	22.6	2.0
80°-90°	4.0	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	366.7	32.4
0°-40°	600.7	53.0
0°-60°	1016.2	89.7
0°-90°	1133.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1133.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	470	470	470	470	470	
5°	468	469	468	468	470	45
15°	453	454	454	453	454	128
25°	421	421	421	421	421	194
35°	373	373	375	375	375	233
45°	300	306	312	307	301	229
55°	183	201	225	202	186	164
65°	75	89	107	89	75	76
75°	15	18	22	16	15	19
85°	4	4	4	4	4	4
90°	0	0	0	0	0	



TEST NUMBER: P274480

CATALOG NUMBER: LD4B15DE010W2N2050 EU4B1020W2N902050 4LBCSSQ1MW

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	470.3	470.3	470.3	470.3	470.3
2.5°	470.3	470.3	469.1	469.1	470.3
5°	468.0	469.1	468.0	468.0	470.3
7.5°	466.8	466.8	466.8	466.8	468.0
10°	463.3	463.3	463.3	463.3	463.3
12.5°	458.6	459.8	458.6	458.6	459.8
15°	452.8	454.0	454.0	452.8	454.0
17.5°	446.9	446.9	445.8	446.9	446.9
20°	438.8	438.8	438.8	438.8	439.9
22.5°	430.6	430.6	429.4	431.8	430.6
25°	421.3	421.3	421.3	421.3	421.3
27.5°	410.8	410.8	410.8	411.9	411.9
30°	399.1	400.3	400.3	400.3	400.3
32.5°	387.4	387.4	387.4	388.6	388.6
35°	373.4	373.4	374.6	374.6	374.6
37.5°	358.3	359.4	361.8	360.6	359.4
40°	340.8	343.1	346.6	344.3	341.9
42.5°	322.1	325.6	330.3	326.8	323.3
45°	299.9	305.7	311.6	306.9	301.1
47.5°	274.2	283.6	292.9	284.7	275.4
50°	246.2	259.1	271.9	259.1	245.1
52.5°	214.7	231.1	248.6	232.2	214.7
55°	183.2	200.7	225.2	201.9	185.5
57.5°	152.9	171.5	197.2	171.5	152.9
60°	126.0	142.4	168.0	142.4	124.9
62.5°	99.2	114.4	136.5	114.4	98.0
65°	74.7	88.7	107.4	88.7	74.7
67.5°	53.7	65.4	81.7	64.2	53.7
70°	37.3	45.5	57.2	44.3	36.2
72.5°	23.3	28.0	37.3	28.0	23.3
75°	15.2	17.5	22.2	16.3	15.2
77.5°	11.7	11.7	12.8	11.7	11.7
80°	8.2	8.2	8.2	8.2	8.2
82.5°	5.8	5.8	5.8	5.8	5.8
85°	3.5	3.5	3.5	3.5	3.5
87.5°	1.2	1.2	1.2	1.2	1.2
90°	0.0	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)